Solving Radical (Square Root) Equations

Name _____

Date _____ Period _____

To solve equations with square roots, isolate the squared term, then square both sides.

$$\sqrt{x} = 5 \qquad\qquad \sqrt{x} = \text{-}3$$

Looking for the principle (positive) square root.
Always check your solutions for extraneous (false) answers.

To solve equations with square roots, isolate the squared term, then square both sides.

$$\sqrt{x + 3} = 4$$

To solve equations with square roots, isolate the squared term, then square both sides.

$$\sqrt{x-7} = 6$$

To solve equations with square roots, isolate the squared term, then square both sides.

$$\sqrt{x+2} = -2$$

To solve equations with square roots, isolate the squared term, then square both sides.

$$\sqrt{x} + 3 \; = \; 8$$

To solve equations with square roots, isolate the squared term, then square both sides.

$$\sqrt{x} - 6 \; = \; 2$$

To solve equations with square roots, isolate the squared term, then square both sides.

$$\sqrt{2x} + 5 = 9$$

To solve equations with square roots, isolate the squared term, then square both sides.

$$5\sqrt{x} - 6 = 14$$

To solve equations with square roots, isolate the squared term, then square both sides.

$$\sqrt{2x + 3} = x$$